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would have enhanced the quality of the estimates reported. Although these challenges are faced by all observational studies void of any intervention, they provide a picture of the reality and highlight gaps for improvement by governments in the cascade of HIV treatment and care.

HIV medicine, in some cases, suppresses the virus to levels of non-detection, also known as an undetectable viral load. Han and colleagues<sup>3</sup> used a viral load measurement of less than 1000 copies per mL as a measure of viral suppression, whereas other investigators use lower thresholds. Therefore, a consensus is required for a more refined and robust understanding of HIV viral suppression: a global harmonised protocol to estimate viral suppression is needed.

Attaining viral suppression is more challenging in children and adolescents than in adults. Interventions to mitigate challenges in children and adolescents include starting treatment early and keeping them on treatment after initiation, enhancing the support available in the home and in community environments, and managing malnutrition. An integrated approach to achieve these would be highly beneficial. Importantly too, continuous comprehensive data are needed to understand the effect of drug resistance acquired from interventions to prevent mother-to child-transmission on subsequent viral suppression.

Country-specific interventions remain a fundamental approach for substantial incremental global progress towards achieving the 95% viral suppression target by 2030. In our own country-specific experience,<sup>5,6</sup> mitigating a combination of factors, such as drug resistance both in the population not on treatment and in

the population on treatment, improving adherence, and managing undisclosed exposure to antiretrovirals before treatment initiation, might be key determinants for South Africa, where recent data suggest that an estimated proportion of only 66% of the population on treatment is virally suppressed.<sup>7</sup>

As treatment regimens evolve, and as countries and territories increase their efforts towards the UNAIDS 95-95-95 targets, measures to reduce cessation of treatment and the establishment of nationally integrated laboratory management information systems would permit the availability of quality datasets for an improved analysis of viral suppression across regions and globally.

We declare no competing interests.

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## Charting a course for public health leadership by cities on HIV, tuberculosis, and viral hepatitis

Dec 1, 2021, marks the 34th World AIDS Day, a sombre occasion during which we will remember the 32 million lives lost to AIDS-related conditions, acknowledge the 38 million people who are living with HIV (of whom 27.5 million are receiving antiretroviral therapy), and recommit ourselves to ending the global HIV pandemic.<sup>1,2</sup> Recommitment is more important than ever, because disruptions caused by COVID-19 have hampered HIV

responses around the world, laying bare inequalities and weaknesses in our public health infrastructure. These dual pandemics have also disproportionately affected people living in urban settings, especially in low-income and middle-income countries, and socially marginalised populations that already bear a higher burden of HIV.<sup>3</sup>

Convened in late 2020 by the International Association of Providers of AIDS Care (IAPAC), the

IAPAC-Lancet HIV Commission on the Future of Urban HIV Responses is charged with examining how cities can regain momentum in efforts to end urban HIV epidemics by 2030. The Commission's mission is to define the role that cities are playing and must continue to play in advancing data-informed, community-driven, and equity-based responses to HIV, as well as to tuberculosis and viral hepatitis (HBV and HCV), syndemic and comorbid conditions, and underlying social determinants of health. Commissioners were recruited primarily from jurisdictions and communities within the Fast-Track Cities network, which includes more than 350 cities worldwide.<sup>4</sup>

The COVID-19 pandemic has highlighted the importance of cities in advancing public health responses, notably where local needs are unique. With respect to HIV, since its discovery, cities have been at the forefront of meeting their citizens' needs. City governments have also proven frequently that, compared with some national governments, they are more accountable to local communities, responsive as incubators of innovation, and supportive of community-led interventions to reach marginalised and vulnerable citizens. Yet, cities face limitations and challenges in their responses to public health threats. By actioning the concept of city multilateralism (in which cities engage with national counterparts to attain global public health goals), cities can better engage in their own health diplomacy and supplement national efforts. This path forward is key to how we frame our work as a Commission.<sup>5</sup>

We identified seven thematic areas around which we are focused: realising the right to health in urban settings; building health systems resiliency; mitigating the effects of syndemic conditions and comorbidities; addressing social determinants of health; implementing data-driven accountability frameworks; redesigning HIV responses to be equity-based; and modelling the end of urban and national HIV epidemics. Our goal is to review what is known and what is inconclusive with respect to each area and propose opportunities for actions to help cities end their urban HIV and tuberculosis epidemics, and to eliminate HBV and HCV, by 2030.

We call on more than 350 cities to reaffirm their commitment to the Fast-Track Cities objectives because the COVID-19 pandemic has resulted in setbacks. For example, the Global Fund to Fight AIDS, Tuberculosis

and Malaria reported a 22% decline in people accessing HIV testing and an 11% decrease in people accessing HIV preventive services in 2020 compared with 2019.<sup>6</sup> These statistics represent real lives, with 1·5 million people acquiring HIV in 2020 as services were disrupted.<sup>7</sup> The COVID-19 pandemic has also reinforced the importance of a person-centred approach. The urgency to protect hard-won gains by ensuring that no disease is left behind has been underscored over the past 2 years.

With respect to HIV, COVID-19, and other public health challenges, cities are proving the invaluable role they play in equitably connecting with diverse communities, efficiently communicating health information, and leading public health responses. Still, there is room for improvement. Lessons learned through the COVID-19 pandemic must be woven into contemporary strategies to tackle urban health priorities, including ending inequity, inequality, and stigma, as well as investing in local communities for sustained responses to HIV, tuberculosis, and viral hepatitis.

We look forward to publishing the results of our work, and expect to do so in 2022. We hope our recommendations will guide future actions to end the epidemics of HIV and tuberculosis, and to eliminate HBV and HCV, in cities that are made more agile, inclusive, healthy, and resilient through these actions.

José M Zuniga is President/CEO of IAPAC and the Fast-Track Cities Institute (FTCI). He also serves as Chair of the IAPAC-Lancet HIV Commission on the Future of Urban HIV Responses, the work of which is made possible through support from IAPAC, FTCI, and ViiV Healthcare.

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